DOCUMENT RESUME

ED 227 727 HE 015 823

AUTHOR Clarke, John H.
TITLE The Effectiveness of Remediation among High Risk College Freshmen of Different Ages.
PUB DATE [82]
NOTE 14p.
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Academic Achievement; *Academic Persistence; Adult Students; *Age Differences; *College Freshmen; Grade Point Average; Higher Education; *High Risk Students; Potential Dropouts; *Remedial Programs; Student Participation

ABSTRACT

The effectiveness of remediation in reducing the risk among skills-deficient college freshmen of different ages was studied. Twenty-five percent of the entering class of the University of Massachusetts, Boston, were identified as skills deficient, based on scores on the Clarke Self Assessment Survey and a written diagnostic test. Of the 258 students, 148 were 18 or 19, while 110 were 20 years old or older. During their first semester, students' participation in voluntary remediation programs was monitored, along with first semester persistence rates and grade point averages (GPAs). For older students, but not for younger students, participation in remediation was associated with high rates of persistence in academic courses. In addition, older students with high rates of hourly contact with remedial activity, and younger students with moderate hourly contact, received higher GPAs than students of all ages participating at low rates. The findings may suggest that older skills-deficient students may be distinguished from similarly deficient younger students by differences in purpose or motivation. (SW)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED227727

The Effectiveness of Remediation Among High-Risk College Freshmen of Different Ages

JOHN H. CLARKE

This study examined the effectiveness of remediation in reducing the risk among skills deficient college freshmen of different ages. For older students, but not for younger students, participation in remediation was associated with high rates of persistence in academic courses ($p = .007$). In addition, older students with high rates of hourly contact with remedial activity, and younger students with moderate hourly contact, received higher grade point averages than students of all ages participating at low rates ($p < .05$). Discussion focused on differences in motivation that may account for differences in success among college students of different ages.

HE 015 823

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

John H. Clarke

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

✓ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

As demographers begin to confirm earlier predictions of a radical decline in the college-age population, colleges have increased the search for a new student clientele. Beyond the population decrease, Stephen P. Dresch, president of the Institute for Demographic and Economic Studies in New Haven, has been quoted predicting a greater decline in college enrollment than in the age cohort.(12) In response to these predictions, colleges have focused their search for new students on two main groups of "non-traditional" students - young people in the traditional age cohort who may not have qualified for admission during the previous decade and older people who either chose not to attend college after high school or did not qualify at that time. (13) The problem has been that underprepared younger students and older returning students have been associated with a higher degree of academic risk than traditional students. (1) Clearly, neither group of non-traditional students will prove a valuable resource to higher education if they fail to survive their first semesters. Conversely, higher education will not prove a valuable alternative to non-traditional students unless it modifies its programs to meet their unique needs. (5)

To increase the survival rate of the new clientele, many colleges have made academic skills services available, such as, remedial training in reading, writing and study skills through group work or tutorials. On most college campuses these programs are offered on a voluntary basis, without academic credit. (19) Colleges which have developed voluntary remedial services presume that students who recognize their deficiencies will select appropriate remedial services, participate in remediation until the deficiencies

disappear and then continue in the regular curriculum and obtain a degree. This view has a certain systematic rationality.

However, little evidence has been accumulated to show that non-traditional students, who may be high academic risks, pursue a rational course toward survival after they enter a college or university. The possibility exists that some skills deficient students may choose not to participate in skills development activities. Students who do choose remediation may participate at different rates in different kinds of activity. Different patterns of activity among students from different age groups might be associated with different effects in terms of college success. The present study aimed to explore the possibility that the availability of voluntary remedial programs might have different effects on high risk students of different ages.

Research into remediation has produced mixed results. Stanley's evaluation of the literature identified no approach to remediation capable of closing large gaps between ill-prepared and well prepared students. (18) A later study, found that the grades of students in remedial classes fell well below the norm for all students. (15) However, the evidence when skills deficient remedial students are compared with similar control groups in support of remediation is more promising. Harcleroad (10) concluded his examination of the literature by endorsing a multifaceted approach to college level remediation.

Some studies do show the effectiveness of singlefaceted approaches among some groups of students. Menges, Marx and Trumppeter (14)

found that increased contact with tutors, irrespective of ability test scores, produced higher grades than lower rates of contact. Rose (16) reported the success of a counseling program in improving grades. Goldman (9) has demonstrated the effectiveness of a contract system in improving the performance of high risk students. These studies suggest that several approaches may prove successful with high risk students, while they also allow for the possibility that differences in performance may depend as much on student variables as on program variables.

The literature generally provides support for the hypothesis that improvement among skills deficient, high risk college students may depend on a complex relationship between student attitudes, ability and the availability of remedial support. Some attitude differences are associated with age differences. Dubois and Weintge (6) found that age tends to correlate both with social maturity and with scholarly activity. Although Seaman & Schroeder (17) found no direct relationship between age and educative behavior, they did confirm a positive relationship between attitudes toward education and educative behavior. Research related to the present study revealed that older skills deficient freshmen are distinguished from younger freshmen by clearer orientation to college study. (3) Furthermore, participation in remediation accompanied high orientation to study among older students and low orientation to study among younger students.

Given the possibility of differences in attitudes towards education among skills deficient students of different ages, the

present study aimed to test two hypotheses: First, that participation in voluntary remediation would be associated with different rates of persistence in credit-bearing college courses between two age groups; second, that grade point average would differ among skills deficient students by interactions among factors of age, type of remediation selected and rate of participation in hours. The study expected to find older students persisting in their courses and participating in remediation at greater rates than younger students. It also expected to find older remedial participants achieving higher grade point averages (GPA) than younger participants and non-participants.

Sample Selection

Of approximately 1200 freshmen entering the University of Massachusetts/Boston, 258 students or approximately one quarter were identified as skills deficient on the basis of scores on the Clarke Self Assessment Survey and/or a written diagnostic test prepared and evaluated by members of the English Department. Fifty-seven percent (148) of these students were 18 or 19 years old, representing the conventional age group for college admissions. The remaining forty-three percent (110) were 20 years old or older, with the average age of the older group being approximately 26, and with a range of ages between 20 and 65 years.

Procedure

During an orientation day, all of the skills deficient population were advised to consider seeking remedial assistance to compensate

for their scores on the diagnostic tests. Two weeks later, all students received a letter reminding them of the time and place of their first meeting. For the purposes of this study, participation in remediation was defined as at least one hour of actual attendance at a remedial activity. Students were given the choice of participating in general skills development courses (group), receiving individualized help through tutorials (individual) or combining the two types of help in a mixed form (mixed). During their first semester, hours of participation were monitored and recorded. At the end of the semester, persistence rates and grade point averages on a course by course basis were also recorded. *Students were said to have persisted in their credit courses if they received a grade that would qualify them to continue their studies (A,B,C,D) and not to have persisted if they failed, received an incomplete or withdrew from a course.

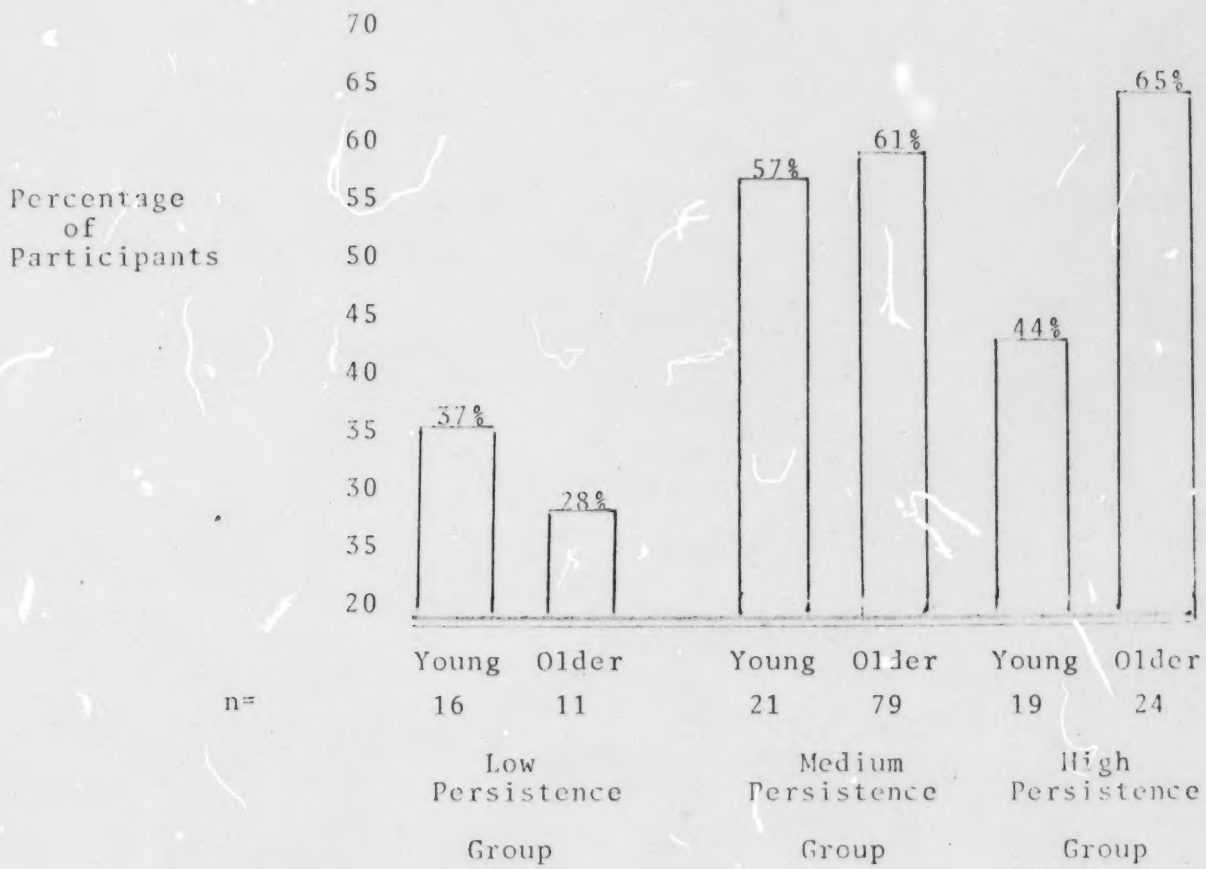
Results

As a group, the skills deficient students persisted in less than one half (47%) of their courses in their first semester of study. To test the hypothesis that participation in remediation would be associated with different rates of persistence in credit bearing courses between older and younger high risk students, a Chi Square test of independence was performed on the subpopulation of remedial participants. (n=180) The group of participants was divided by age (18-19/20-65) and by the percentage of courses completed (persistence = low: 0-37%; medium: 38-67%; high: 68-100%). Figure 1 represents remedial participants in two age groups falling into low

medium and high persistence groups.

Figure 1

PERCENTAGES OF PARTICIPANTS IN REMEDIATION IN TWO AGE GROUPS FALLING INTO HIGH, MEDIUM AND LOW PERSISTENCE GROUPS



$X^2 = 15.72$, 5 df, p. = .007 and n = 180

While 65% of the older students in the high persistence group had been remedial participants, only 44% of the younger students in that group had chosen to seek remedial help. Older remedial participants were more likely to persist at a high or medium rate than at a low rate. For older students, but not for younger students,

participation in remediation appeared to be associated with its intended result - survival in college courses. Among younger students, participation in remediation was more likely to be associated with medium persistence than low persistence. Low persistence was associated with low remedial participation for both age groups.

To test the hypothesis that grade point average, as a further measure of college achievement, would vary by interaction among factors of age, type of remediation selected and rate of participation in remedial activity (in hours) a 2x3x3 ANOVA was performed, with age in two levels, type of remediation in three levels and hourly rate of participation in three levels. A low rate was considered to be 0-3 hours of contact; a moderate was 4-11 hours; a high rate was 12 or more hours of remedial contact. Table 2 represents the analysis of variance in GPA.

TABLE 2

GRADE POINT AVERAGE
BY AGE, TYPE OF INSTRUCTION
AND RATE OF PARTICIPATION

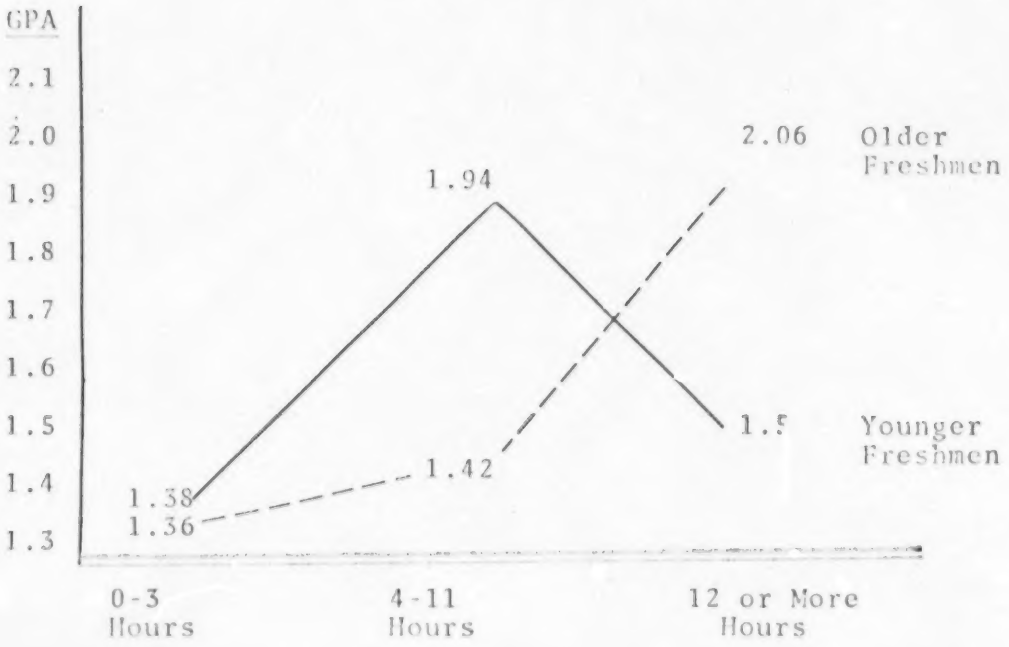
Source	df	SS	MS	F
Age	1	.028	.028	.021
Type	3	9.276	3.09	2.326x
Rate	2	4.676	2.338	1.759
Age x Type	3	6.146	2.049	1.541
Age x Rate	2	7.841	3.921	2.949*
Type x Rate	3	3.058	1.019	.767
AxRxT	3	.659	.219	.165
Error	241	320.41	1.33	
Total	258	351.91	1.364	

NOTE: x = p approaching .05, *p .053

Although no difference appeared in GPA by age, type of remediation, or rate of contact, differences did appear in the interaction between age and rate of contact. Table 3 represents difference in mean GPA by the interaction between age and rate of remedial contact.

Figure 2

Grade Point Average
By Age and Rate of Participation In
Remediation



With participants of both ages with low contact hours as the control group, Dunnett's tests revealed that younger students with moderate contact and older students with high rates of contact scored higher than the control group of low-contact students ($t = 2.57$; $p < .05$).

Older students with moderate contact rates and young students with high contact rates did not score higher than the low contact group. While low rates of contact appeared to have a similar effect on the GPA of older and younger students, high contact rates favored the older students.

Discussion

The results of both analyses are basically consistent. Voluntary participation in remediation may not have the same effect on skills-deficient students of different ages. The decision to avoid remediation or participate at low rates may be associated with a similar lack of success among both age groups. However, the decision to attend remedial classes, particularly at high rates of contact, may be beneficial to older students and not to younger students. Achievement in the first college semester, measured by persistence or GPA, may evolve differently for older and younger freshmen. In this study, older college students were more able than younger students to use remedial services to support their academic careers.

The findings suggest that older skills-deficient students may be distinguished from similarly deficient younger students by differences in purpose or motivation. The decision to attend voluntary remedial program may signal the presence of high motivation among older students while it may signal something quite different among young students - possibly debilitating anxiety or a self-defeating attitude. (20) While older students may choose remediation as a direct means of improving their chances of survival, younger

students may either lack personal commitment to positively confront their deficiency or lack confidence in the capacity of remedial programs to reverse the established trend of their failure.

The study suggests that skills-deficient freshmen of different ages may not represent the same degree of academic risk, when voluntary remedial programs are made available. Older students may view the availabilty of remedial services (and possibly their own capacity to capitalize on those services) in a more positive light than younger students. Younger students who chose to participate in remedial classes at high rates may do so more to confirm their own self doubt than to assert their need for achievement within the institution. The study may help to explain the failure of research to identify patterns of remediation that prove equally effective in all studies and among all students. (8)(7)(10)(15)(18)

Unlike Astin's study of the whole college population, (1) this study did not associate college failure with greater age. Nor did this study confirm the findings of Know et al, (11) that a lapse in educational experience represented even a temporary disadvantage to adult learning. Or the contrary, this study points to the possibility that older students, by virtue of their determination to forward their education, may bring to college study qualities of motivation that may counterbalance the effect of their inadequate preparation. The nature of that motivation must remain for further study. Colleges and universities which seek to expand the pool of their applicants as the younger population declines may want to study more carefully older students, even when their preparation is inadequate.

References

1) Astin, Alexander W., Predicting Academic Performance in College, Free Press, New York, 1971

2) Brown, William F., and Wayne H. Holtzman, Survey of Study Habits and Attitudes (Form C) The Psychological Corporation, New York, 1966.

3) Clarke, John H. "Choosing College Level Remediation: Some Age and Attitude FActors." Adult Education. (In Press)

4) Clarke, John H. and Wittes, Simon, Reading Self Assessment Survey Academic Therapy Publications, San Rafael, CA, 1978

5) Cross, K. Patricia, Accent on Learning: Improving Instruction Reshaping the Curriculum, Jossey Bass, San Francisco, 1976

6) Dubois, P.H. and K.M. Wientge, Factors Associated with the Achievement of Adult Students, George Washington University St. Louis, MO 1964

7) Etzioni, Amitai, "The Policy of Open Admissions" a New Teaching: New Learning, (G. Kerry Smith, ed) Jossey Bass, SF, 1971.

8) Gordon, Edmund and Doxey A. Wilkerson, Compensatory Education for the Disadvantaged, CEEB, New York, 1966.

9) Goldman, Gloria, "Contract Teaching of Academic Skills," Journal of Counseling Psychology, 15 (1978) 320-324.

10) Harcleroad, Fred F., "Disadvantaged Students and Success in College," in New Teaching: New Learning, G. Henry Smith, Ed., Jossey Bass, San Francisco, 1971.

11) Knox, Alan B., Ardin Grotelveschen, and Douglas D. Sjogren, "Adult Intelligence and Learning Ability." Adult Education, 18 (1968) 188-196.

12) Magarell, Jack, "The Enrollment Roller Coaster: Colleges Fear the Big Dip," Chronicle of Higher Education, September 5, 1978.

13) Martorana, S.V. and Eileen Kuhns, "Academic Programming" in Research Currents, AAHE Bulletin 30, (1978) 4-6.

14) Menges, Robert J., Robert Marx and P. William Trumpetter, "Effectiveness of Tutorial Assistance for High Risk Students in Advanced College Courses," Journal of Counseling Psychology, 19 (1972) 229-232.

15) Roueche, John E. and Wade Kirk, Catching Up: Remedial Education, Jossey Bass, San Francisco, 1973.

16) Rose, Harriet A. "Prediction and Prevention of Freshman Attrition" Journal of Counseling Psychology, 12, (1965) 399-403.

17) Seaman, Don F. and Wayne L. Schroeder, "The Relationship Betwen Extent of Educative Behavior by Adults and Their Attitudes Toward Continuing Education," Adult Education, 20. (1970) 99-105.

18) Stanley, Julian C. "Predicting College Success of the Educationally Disadvantaged" in Barriers to Higher Education, CEEB, Princeton, New Jersey, 1973.

19) Thomas, Joab. L. and Stanley J. Murphy, Academic Programs: A New Dimension in Student Affairs NASPA Publication, March, 1975.

20) Treppa, Jerry A., "Personality Characteristics of Successful College Students Who Enroll in Study Skills Courses," Journal of Counseling Psychology, 20, (1973) 549-552.